



JC19 R-19 PCT/PTO 23 MAY 2001

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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1-23-02

In re Application of:

JAN 18 2002

JOHN H. SKERRITT

TECH CENTER 1600/2900

Appln. No.: 09/830,876

Group Art Unit: 0000

Filed: May 2, 2001

Examiner: Unknown

For: DETECTION OF PREHARVEST SPROUTING
IN CEREAL GRAINS

SUPPLEMENTAL PRELIMINARY AMENDMENT

Assistant Commissioner
of Patents
Washington, D.C. 20231

Sir:

Supplemental to the Preliminary Amendment filed May 2, 2001, and prior to examining the above-identified application, please amend the application as follows.

IN THE ABSTRACT:

Please insert the attached Abstract.

REMARKS

The Abstract has been added in order to make the consistent with U.S. patent practice. Hence, the insertion of the Abstract does not constitute new matter.

The Examiner is invited to contact the undersigned at his Washington telephone number on any questions which might arise.

Respectfully submitted,


Gordon Kit

Registration No. 30,764

SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3202
Telephone: (202) 293-7060
Facsimile: (202) 293-7860
Date: May 23, 2001

A P P E N D I X

Marked-up Version of Amended Application

IN THE ABSTRACT:

An Abstract has been added to the specification.



09/830,874

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A B S T R A C T

TECH CENTER 1600/2900

A two-site immunoassay for the qualitative or quantitative detection of alpha-amylase in a test sample, said immunoassay comprising: (1) exposing said test sample to a first ("capture") antibody or fragment thereof which specifically or preferentially binds to a first epitope on said alpha-amylase, under conditions permitting binding of said first antibody or fragment thereof to alpha-amylase if present, (ii) subsequently exposing bound alpha-amylase, if any, to a second ("detection") antibody or fragment thereof which specifically or preferentially binds to a second epitope on said alpha-amylase that is distinct from said first epitope, under conditions permitting binding of said second antibody or fragment thereof to said bound alpha-amylase, and (iii) detecting any binding of said second antibody or fragment thereof to said bound alpha-amylase, wherein either of said first or second epitopes is an epitope comprising one or more of the amino acid sequences: IDRLVSIRTRGQIHS (SEQ ID NO:1), CRDDRPYADG (SEQ ID NO:2), VNWVNKGGS (SEQ ID NO:3) and variants thereof showing $\geq 80\%$, more preferably $\geq 90\%$, sequence identity. The immunoassay is useful for detecting weather damage (i.e., preharvest sprouting) in cereal grain.